

Environmental Public Health Newsletter

Cape Cod Massachusetts

April 2000

Massachusetts Department of Public Health

Volume 1, Issue 1

Public Health Activities on Cape Cod

The Bureau of Environmental Health Assessment (BEHA) of the Massachusetts Department of Public Health (MDPH) has been actively involved in environmental public health issues on Cape Cod for many years. As many Cape residents may be aware, in 1997 BEHA opened the Environmental Public Health Center (EPHC) located on the Massachusetts Military Reservation (MMR) with funds provided under a cooperative agreement with the U.S. Agency for Toxic Substances and Disease Registry (ATSDR) from the U.S. Department of Defense. The purpose of the office is to provide a sense of public health watchfulness on issues related to the MMR. In addition to MDPH activities related to the MMR, the BEHA has also conducted numerous environmental public health activities across Cape Cod.

As part of our ongoing efforts to keep the residents of Cape Cod informed of the activities undertaken and services provided by MDPH, this is the first issue of a newsletter that will be published quarterly.

As always, staff at BEHA welcome comments and suggestions from the public so that we may better serve you.

BEHA staff are available at both the EPHC and Boston MDPH headquarters to answer questions about environmental public health issues and to provide the public with a variety of services including technical assistance and environmental health education or community outreach efforts. Please feel free to contact either office for more information on services provided.



The Bureau of Environmental Health Assessment



The Environmental Public Health Center

Epidemiological Investigations

Upper Cape Cancer Incidence Review

In June 1999, MDPH released the final report of the Upper Cape Cod Cancer Incidence Review for the years 1986-1994. The report evaluated the most recent cancer incidence data from the Massachusetts Cancer Registry for 25 types of cancer at the census tract level for all Upper Cape Cod towns. The report concluded that the cancer types most often elevated at the census tract level included female lung cancer, prostate cancer, melanoma, and female breast cancer. However, no particular type of cancer seemed to account for the Upper Cape's overall elevated rates but a number of generally etiologically unrelated cancers contributed to the elevated rates. The MDPH recommended that a follow-up investigation of lung cancer and possible association with the Upper Cape Cod environment be undertaken.

Childhood Cancer on Cape Cod

In September 1999, MDPH released an evaluation of childhood cancer on all of Cape Cod. The report evaluates cancer among children (age 19 years or younger) who were residents on Cape Cod at the time of diagnosis. The most common types of cancer reported were lymphomas, leukemia, and central nervous system tumors. Slight elevations were seen among Mid-Cape and Lower Cape children, but

childhood cancer incidence on Cape Cod generally followed patterns that have been observed elsewhere in Massachusetts. Because cancer cases did not appear to concentrate in any specific area of a community or within any specific period of time, the results of the report did not suggest any common environmental factor as being responsible for the slight elevations of childhood cancer on Cape Cod

Cape Cod Breast Cancer and Environment Study

Silent Spring Institute (SSI), under contract to MDPH, is conducting a case-control study of breast cancer and the environment on Cape Cod. The study includes interviews of women with and without breast cancer from throughout the Cape. In addition, current and historical residences of the women participating in the study will be mapped in SSI's geographic information system (GIS), which contains extensive environmental data (e.g., water quality data, land use patterns) from throughout the Cape to evaluate possible associations of opportunities for environmental exposures and breast cancer. SSI is also conducting environmental sampling (e.g., housedust) in some households to determine levels of compounds called endocrine disruptors that may be associated with breast cancer risk.

For information on Bureau of Environmental Health Assessment activities on Cape Cod contact the following offices:

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The Massachusetts Department of Public Health Bureau of Environmental Health Assessment
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For further information, reports, fish advisories, and fact sheets access our web site at:
www.state.ma.us/dph/beha/beha.htm

Evaluations of Environmental Data

EDB and Cranberries

In March 1997, ethylene dibromide (EDB) contamination in the FS-28 plume coming from the MMR raised concerns in the Hatchville area of Falmouth. Local cranberry growers harvest from bogs located in the vicinity of the Coonamessett River. MDPH evaluated public health concerns related to the discovery of EDB in ground and surface waters and the use of surface waters for cranberry cultivation. MDPH raised concerns about opportunities for exposure to EDB on cranberries, as well as via volatilization of EDB from the surface waters. That year, MDPH sampled and analyzed cranberries from this area and found EDB detections in the cranberries. After these initial sampling efforts, MDPH and EPA co-chaired a technical committee tasked to conduct a sampling and analysis protocol for future cranberry testing efforts. This protocol was finalized in July 1999. Annual testing of cranberries continues, and MDPH continues to provide technical support in evaluating the results of this testing.

Fish Consumption Advisories

MDPH is responsible for issuing fish consumption advisories for recreational fish across the state. On



Cape Cod, MDPH has issued fish consumption advisories for a number of fresh

water bodies primarily based on elevated mercury concentrations. The freshwater fish consumption advisories issued by BEHA are continually updated on our web site at:

www.state.ma.us/dph/beha/fishlist.htm.



Recreational Ponds Fact Sheet

Each year, the MDPH evaluates available environmental data for ponds used for recreation on Upper Cape Cod and issues a fact sheet summarizing these data. These reviews include extensive data on ponds throughout the Upper Cape and evaluated whether opportunities for exposure may result in health concerns. The most recent fact sheet was released in June 1999. Further information and fact sheets can be obtained by contacting staff at the EPHC at the Massachusetts Military Reservation.

Newsletter Information:

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PAVE PAWS

The MDPH convened an expert panel with knowledge of microwave radio frequency radiation, health physics, and epidemiology to advise the Department about health concerns related to the PAVE PAWS radar installation facility on the MMR. A final report to the department was provided and publicly released in November 1999. The report has the following important conclusions: (1) health effects data on the type of radiation emitted by PAVE PAWS are unclear, sometimes contradictory, or lacking, and (2) better environmental data are needed to characterize opportunities for exposure and potential health impacts from the facility. MDPH held a public meeting on March 13, 2000, to discuss the panel report and follow-up activities. The Department of Defense has committed to funding the collection of comprehensive environmental data which will allow for an exposure assessment of PAVE PAWS to more clearly understand the health effects of human exposure to this facility.

The Environmental Public Health Center
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Environmental Health Education and Outreach

MDPH has been involved with several outreach or environmental health education activities on Cape Cod, many of which are related to public health issues concerning the MMR.

Grand Rounds

MDPH presented to health professionals at area hospitals to provide information on health concerns related to environmental exposure. In 1997, a Grand Rounds was conducted at Falmouth Hospital on public health issues related to the MMR. A second Grand Rounds is being planned for September 2000, and will review cancer incidence on Upper Cape Cod and environmental health risks.

Health Fairs

BEHA staff attend health fairs to answer questions about environmental public health or provide information about the services available from BEHA. For example, in September 1999 BEHA staff participated in Environmental Bright Ideas Day, an environmental science and health event at the MMR that was held for middle school students from Upper Cape Cod towns addressing issues related to the MMR cleanup.

Risk Communication Group

BEHA staff participate in a technical risk communication group that develops fact sheets for the lay audience on various environmental or public health issues on the MMR. Examples of past fact sheets include some on specific chemicals of concern (e.g., trichloroethylene, ethylene dibromide) at the MMR. These fact sheets are available to the public. Please contact the EPHC for more information.